CLAIMS:

1. Method for producing a supplementary cementitious material (SCM) characterized in that it comprises the steps:
a) providing dredged sludge comprising at least 50 wt.% to at most 90 wt.% water, at least 0 to at most 60 wt.% dry matter-based (DM) coarse fraction, and at least 40 wt.% DM fine fraction;
b) removing the sand fraction from the dredged sludge, thereby retaining the fine fraction of the dredged sludge, the fine fraction comprises less than 30 wt.% having a grain size larger than 63μm;
c) adding of portlandite (slaked lime, $Ca(OH)_2$), or quicklime (CaO) to the fine fraction;
d) dewatering of the fine fraction, thereby forming dried filter cake precursor; and,
e) thermally treating the dried filter cake precursor.

2. The method according to claim 1 wherein the fine fraction comprises less than 10wt% grains having a grain size larger than 63μm.

3. The method according to claim 1 or claim 2 wherein step e) involves calcination of the dried filter cake precursor.

4. The method according to any one of claims 1 to 3 wherein step e) involves flash calcination of the dried filter cake precursor.

5. The method according to claim 4 wherein flash calcination involves heating the dried filter cake precursor for at least 0.10s to at most 10s at a temperature of at least 800°C to at most 1100°C.

6. The method according to any one of claims 1 to 3 wherein step e) involves heating the dried filter cake precursor in a rotary kiln; to a temperature between at least 550°C and at most 850°C, for at least 20 minutes to at most 3 hours.

7. The method according to claim 6 wherein the temperature is between at least 650°C and at most 750°C.

8. The method according to any one of claims 1 to 7 wherein the dried filter cake precursor comprises at least 40 to at most 99 wt.% DM hydrous aluminosilicates and at least 1 to at

most 15 wt.% DM calcium (alumino-)silicate hydrates; wherein the calcium (alumino-) silicate hydrates are products of the pozzolanic reaction between $Ca(OH)_2$ and the fine fraction of the dredged sludge.

9. The method according to any one of claims 1 to 8 wherein step c) involves adding portlandite ($Ca(OH)_2$) to the fine fraction of the dredged sediments in a quantity of 2 to 10 wt.% DM, or wherein step c) involves adding quicklime (CaO) in a quantity of 2 to 7 wt.% DM.

10. The method according to any one of claims 1 to 9 wherein the fine fraction comprises less than 60 wt.% physisorbed water.

11. The method according to any one of claims 1 to 9 wherein step d) involves mechanically dewatering the fine fraction.